

REMARKS

In the present Amendment, claims 1 and 4 have been amended for clarification. No new matter has been added, and entry of the Amendment is respectfully requested.

Claims 1-4 and 7-11 are pending, of which claims 4 and 8-11 are withdrawn from consideration.

In paragraph No. 3 of the Action, Claims 1-3 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.

The Examiner states:

“The claims stand rejected for requiring greater than 15% porosity which is measured by the silicon present while requiring the “residual silicon” to be less than 4%. It is not clear how one of ordinary skill would be able to analyze the sintered body and determine which is “residual silicon” and “silicon particles.” The terminology “slurry-like” is considered to render the claims indefinite since it is not clear how much like a slurry the powder must be[,] therefore the metes and bounds of the claims cannot be determined.”

In response, “residual silicon” in claim 1 has been amended to --silicon particles--.

As to the Examiner’s concern that “the claims stand rejected for requiring greater than 15% porosity which is measured by the silicon present while requiring the “residual silicon” to be less than 4%,” Applicant submits that the porosity is obtained from **areas** of silicon carbide particles and silicon particles in a sectional polished surface of the silicon carbide sintered body, while the content of residual silicon (silicon particles) is based on **volume**, as indicated in claim

1. There is no correlation between the porosity and the content of unreacted silicon particles.

Each numerical value is independent from each other.

As to the terminology “slurry-like,” claim 1 has been amended to recite “... dispersing silicon carbide powder in a solvent, followed by pouring an obtained powder mixture slurry in a mold,”

In view of the above, reconsideration and withdrawal of the § 112 rejection of claims 1-3 are respectfully requested.

In paragraph No. 5 of the Action, Claims 1-3 and 7 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious over Odaka et al (WO 200007959, equivalent to US 6,695,984).

Applicant submits that this rejection should be withdrawn because Odaka et al does not disclose or render obvious the present invention.

In the Amendment filed January 23, 2008, Applicant explained:

“Odaka et al do not disclose “impregnating the obtained calcined body 1 with a carbon source, calcining a calcined body 2 impregnated with a carbon source, and heating in a vacuum atmosphere at a temperature in the range of 1450°C to 1700°C for 30 to 90 minutes to remove unreacted silicon” as recited in Claim 1 as amended.

Applicant discloses that when the processing temperature and time conditions in the step of removing the unreacted silicon are not satisfied, the exudation of silicon is observed and a silicon carbide sintered body having insufficient mechanical strength is obtained.”

In response, the Examiner takes the position that the patentability of a product does not depend upon its method of production and it is Applicant’s burden to come forward with

evidence establishing an unobvious difference between the claimed product and the prior art product.

As recited in present claim 1, unreacted silicon is removed by heating in a vacuum atmosphere at a temperature in the range of 1450°C to 1700°C for 30 to 90 minutes, so that the content of unreacted silicon is very small, and silicon carbide particles are uniformly dispersed (porosity is 15-30%, see Fig. 1). Therefore, the claimed silicon carbide sintered body has high purity, high density and high toughness. The heat resistance and the reliability of the silicon carbide sintered body are improved, resulting in expanding a range of applications of products. The claimed silicon carbide sintered body can be used over the temperature of 1420 °C (mp. of silicon). See, page 23, line 2 to page 24, line 2 of the specification.

In contrast, Odaka et al does not teach or suggest the step of removing unreacted silicon, the content of unreacted silicon is assumed to be very high, therefore, the silicon carbide sintered body in Odaka et al does not have the high purity.

In view of the above, reconsideration and withdrawal of the §§102(b)/103(a) rejection based on Odaka et al are respectfully requested.

Allowance is respectfully requested. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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